



# Update

MISSOURI DEPARTMENT OF ELEMENTARY  
AND SECONDARY EDUCATION



Issue 33  
November 2005

## "Fall Issue"

### Professional Associations



ITEA members are invited to submit nominations for the following awards.  
This is your opportunity to recognize colleagues who give that extra effort!

#### **Academy of Fellows**

This is the highest recognition that ITEA can bestow upon any person. To qualify, the individual must have gained prominence in and brought honor to the profession of technology education. The recipient must be an ITEA member. Individuals will be considered based on:

- a) Leadership roles in ITEA and other affiliate organization(s), and
- b) Presentations and professional development activities at local to international level, and
- c) Recognition by peers.

#### **Award of Distinction**

This award is presented to an individual within technology education who has advanced the profession through a sustained and recognized record of exemplary professional activity. To qualify, the individual must be an ITEA member and have distinguished him/herself through accomplishments in:

- a) Improvement of Instruction, or
- b) Research and Scholarship, or
- c) Effective Teaching.

#### **William J. Wilkinson Meritorious Service Award**

The Meritorious Service Award is presented to an ITEA member worthy of commendation for service to the International Technology Education Association. To be considered, individuals must have provided continuous service to ITEA and

- a) Affiliate Association(s) or
- b) The profession.

#### **Lockette/Monroe Humanitarian Award**

Given to an individual who is an ITEA member and has promoted humanistic values while serving as a technology education professional on the national/international, state/province, or local level in one or more of the following areas:

- a) Developing social awareness,
- b) Preserving democratic and/or human dignity processes, and/or
- c) Maximizing the potential of individuals.

#### **Special Recognition Award**

This award is presented to an individual who has established a sustained record of outstanding service to the field of technology education. To qualify, the individual must be an ITEA member and have made a significant contribution to ITEA or technology education. Candidates must meet one of the following criteria:

- a) Promoted technology education at any level (local to international) with a resulting impact; or

- b) Actively facilitated or participated in professional development for technology educators with a resulting impact; or
- c) Recognized at any level for outstanding service or achievement in technology education.

#### ***Prakken Professional Cooperation Award***

This award is presented to an individual who, through teaching, research, and professional service, has promoted the field of technology education in collaboration with other fields of discipline. To qualify, individuals should be involved with projects that collaborate with other disciplines, such as science, engineering, mathematics, marketing, management, etc. The recipient of the award may be from inside or outside of the field of technology education. Nominees do not need to be members of ITEA.

#### ***Sales Representative Excellence Award***

This award, sponsored by Intelitek, inc., is presented to a full time sales representative who has been in the technology education field for at least three years. It recognizes outstanding service, training, and follow-up support. For additional information, contact **Jack Wescott**, Chairperson of the ITEA Awards Committee at [jwescott@bsu.edu](mailto:jwescott@bsu.edu). To nominate a colleague for any of these awards, download the nomination form at [www.iteaconnect.org/l4c1.html](http://www.iteaconnect.org/l4c1.html). All nominations must be postmarked by **December 31**.

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## **ACTE Convention News**

### **Mayor Barnes And U.S. Department Of Education High-Ranking Official Gonzalez To Participate In ACTE Convention**



ACTE announces that Kansas City Mayor, Kay Barnes and Acting Assistant Secretary for the U.S. Department of Education's Office of Vocational and Adult Education, Beto Gonzalez will participate in the ACTE Annual Convention to be held December 8-10, 2005, in Kansas City, Missouri.

Mayor Barnes will bring greetings from Kansas City and share her thoughts on education during the conference's Opening General Session on Thursday, December, 8 at 8:30 a.m. Gonzales will also make remarks at the General Session, as well as participate in a session on the Carl D. Perkins Vocational and Technical Education Act. Gonzalez will share his insights about the Administration's plans and issues surrounding education policy - particularly the Perkins Act, and its vision for the future of career and technical education.

Mayor Barnes was elected in March 1999 as Kansas City's first woman mayor, and was reelected to a second term in March 2003. She brings to the office extensive experience as an elected official, community volunteer, businesswoman and pioneer in women's organizations. Prior to being appointed Acting Assistant Secretary for the Office of Vocational and Adult Education, Beto Gonzalez, a former educator, worked as a special assistant in the Office of Public Affairs in the U.S. Department of Labor. In his new role, Gonzalez will support the Office of Vocational and Adult Education's mission to ensure that all Americans have the knowledge and technical skills necessary to succeed in postsecondary education, the workforce, and life. [\[Additional Convention Info...\]](#)

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**The Missouri Association for Career and Technical Education** is an active group of vocational educators whose strength is derived from their diversity and organizational structure. Missouri ACTE has approximately 3900 members. Members join one of twelve divisions listed below. Each division is designed to cater to a specific professional field.



## Career and Technical Student Organizations (CTSO): Do They Matter and How?

The National Research Center for Career and Technical Education at the University of Minnesota is in the process of completing the final report of a longitudinal research study entitled "The Value Added by Career and Technical Student Organizations (CTSO's) to Students' High School Experience."

The study was conducted over the 2004-2005 academic year and collected data from almost 5,000 CTE, CTSO, and general students and their teachers across multiple states and all eight CTSO's. It was hypothesized that students in CTE programs would have better academic and behavioral outcomes than students in the general population, and that CTSO students in particular would have the best profiles.

Researchers from the University of Minnesota and University of Illinois found that students across all three groups varied on a number of characteristics and attitudes that have implications for post-high school behaviors. Some interesting patterns emerged:

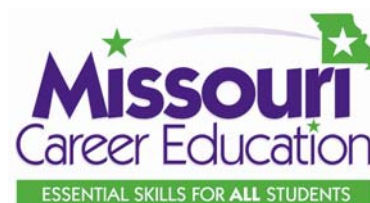
- High school students in CTE programs and CTSO have lower educational aspirations (2-year vs. 4-year college, as was also found in the National Assessment of Vocational Education) than the general comparison group of students, but they have higher certainty of job choice findings that may be more realistic and adaptive for those who wish to pursue a technical career.
- Students in CTSO's have higher levels of participation in extracurricular activities than all other students (CTE and general) and work more hours per week than general students, showing an overall propensity towards higher activity involvement among those who join CTSO's.
- Being in a CTSO did not in itself affect self-reported grades, but among CTSO students, extracurricular activity participation was positively associated with grades and educational aspirations; and participation in competitive events positively affected grades, academic engagement, SCANS-type academic/job skills, and career self-efficacy.
- Finally, CTSO teachers reported that they provided more SCANS type skills in their classrooms, and this was a significant predictor of students' career self-efficacy, motivation, experience of academic/job skills, and grades.

These findings suggest that some aspects of CTSO's have a positive impact on achievement and preparedness for post-high-school success.

Look for the complete report out on the NCCTE Web site in the near future. For more information, please contact Corinne Alfeld, Ph.D, at [alfeld@umn.edu](mailto:alfeld@umn.edu)

### Professional Development Opportunities

**High Quality Professional Development Model**, The MCCE (Missouri Center for Career Education) was awarded the DESE contract to develop several regional workshops around the state to provide specific training on the Exploring Careers Curriculum Model. Technology Education content area will be the first utilize the regional professional development workshops. You will find the philosophy, rationale, scope and sequence within the Exploring Careers through Technology Education curriculum. For more information, contact Ben Yates via email [byates@cmsu1.cmsu.edu](mailto:byates@cmsu1.cmsu.edu) or by phone number (660) 543-4304



SPRING WORKSHOP SITES	HOST TEACHER	SESSION DATES
Iberia High School	Walt Pollard	Feb. 11 March 11 April 8

#### 4 TE UPDATE NOVEMBER 2003

Troy Buchanan High School Troy	Ted Wilkinson	Jan. 21 Feb. 25 May 6
Chillicothe Middle School Chillicothe	John DeBey	Jan. 28 Feb. 18 Apr. 1

#### Funding Opportunities

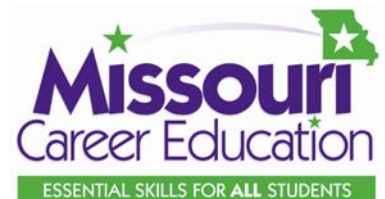
- Educator Grant Program / Aerospace Education Foundation (AEF):**  
*Developing Innovative Aerospace Activities* is designed to promote aerospace education activities in classrooms from kindergarten through twelfth grades. The program encourages development of innovative aerospace activities within the prescribed curriculum. The program also encourages establishing an active relationship between the school and the local Air Force Association organization. Deadline for applications is November 15, 2005 for awards up to \$250.00. Teachers in grades K-12 or home schools are eligible to apply. Contact: Ann Sagle, Aerospace Education Foundation, 1501 Lee Highway, Arlington, VA 22209-1198, (800) 291-8480, email: [asagle@aef.org](mailto:asagle@aef.org). You may visit the website at <http://www.aef.org/aid/educator.asp>.
- American Institute of Aeronautics and Astronautics (AIAA) Classroom Grants: Assisting Future Aeronautics and Aerospace Engineers** assists educators in presenting mathematics, science, and technology principles to students (K-12) in an exciting, hands-on manner to develop our future aeronautics and aerospace engineers, scientists, pilots, and space explorers. Deadline for applications is January 1, 2006. Awards up to \$200 per teacher per lifetime; each school is limited to up to \$1,000 per calendar year are available. K-12 teachers with AIAA Educator Associate membership (No charge. See website to become a member) are eligible to apply. Contact Lisa Bacon, American Institute of Aeronautics and Astronautics, AIAA Foundation Educator Classroom Grants, 1801 Alexander Bell Drive, Suite 500, Reston, VA 20191-4344, (800) 639-AIAA, Ext. 527, email: [lisab@aiaa.org](mailto:lisab@aiaa.org). You may visit the website at <http://www.aiaa.org/content.cfm?pageid=216>.
- Olympus/Tool Factory Visual Learning Contest: Supporting Visual Learning Projects** is making grants to support educators' visual learning projects that effectively and creatively use digital cameras and software. Deadline for applications is December 30, 2005. Ten awards packages valued at more than \$3,500 each, including three 4.0 megapixel cameras, photo software, 30 "digital camera basics" workbooks and \$500 to cover other project costs will be awarded. Educators at K-12 and special education schools in the U.S. and Canada are eligible to apply. Contact: Tool Factory, Inc., 3336 Sunderland Hill Rd., Sunderland, Vermont 05250, (802) 375-6549. You may visit the website at [http://www.toolfactory.com/olympus\\_contest](http://www.toolfactory.com/olympus_contest).
- Toyota USA Foundation: Encouraging Education in Math and Science** has been working for over a decade to fund K-12 education programs, especially in the areas of mathematics and science. The foundation has formed partnerships with some of America's leading organizations and institutions and prefers proposals, which are broad in scope; incorporate interdisciplinary curriculum, "real world" classroom applications; are creative and innovative; develop the potential of students and teachers; and are cost-effective. Deadline for applications is open. Nonprofit 501(c)(3) organizations, institutions of higher education, community colleges and vocational or trade schools, and nonprofit organizations engaged in pre-college math or science are eligible to apply. Contact Foundation Administrator, Toyota USA Foundation, 9 West 57<sup>th</sup> Street, Suite 4900, New York, NY 10019, (212) 715-7486. You may also visit the website at <http://www.toyota.com/foundation>.



- **NASA Spacelink: Urban and Rural Community Enrichment Program** is for grades 5-8. NASA URCEP specialists train core educators as a team to conduct interdisciplinary aerospace activities in school districts. This program is specifically designed to serve middle school students in urban and rural areas. Major activities include lectures, demonstrations, and hands-on classroom activities that supplement the ongoing curriculum. Teachers of middle school students from rural and urban communities are eligible to apply. For more information, download brochure at their web site, <http://aesp.nasa.okstate.edu/URCEP/index.html>, or write NASA Headquarters; Education Division; Attn: URCEP Program Manager; Code FE; Washington, DC 20549.
- **Learn and Serve America** School-Based grants is to involve young people between the ages five and seventeen in service-learning projects that simultaneously support student development and meet community needs in areas such as the environment, education, public safety, and other human needs (see application instructions for a complete list of Service Categories). For more information, contact Scott Richardson, [LSASchool@cns.gov](mailto:LSASchool@cns.gov), phone: (202) 606-7510, web site: [http://www.learnandserve.gov/for\\_organizations/funding/nofa.asp](http://www.learnandserve.gov/for_organizations/funding/nofa.asp).
- **Inspiration Software's Inspired Teacher and Rookie Award: Incorporating Visual Learning into Education** Inspiration Software is offering scholarships for educators who use visual learning in their teaching. They are committed to helping educators use graphic organizers and other visual learning tools to help students develop strong thinking and organizational skills and improve their academic performance. Inspiration Software is offering two types of scholarships: Deadline for applications is January 30, 2006. Funding is available for 25 awards of \$750 in scholarships for workshops or courses. Educators who have been teaching for at least one year in a K-12 school or institution of higher education are eligible to apply. Contact: Inspired Teachers Scholarships, email: [scholarship@inspiration.com](mailto:scholarship@inspiration.com). You may visit the website at <http://www.inspiration.com/prodev/index.cfm?fuseaction=scholarship>.
- **SchoolSpan Web Empowerment Grants: Improving Online Communication** SchoolSpan's annual Web Empowerment Grant opportunity will provide the tools for many schools to upgrade their websites, making them more efficient and useful for the school and the community. The purpose of the grant is to improve the ease of communication between students and school staff; provide a central site of communication between schools and the central office; increase the usefulness and frequency of information shared with parents and the community at large; and increase parent involvement and satisfaction by providing updated information. Deadline for applications is December 15, 2005. Up to \$1 million in technology software will be funded. School districts, independent schools, and private and parochial schools are eligible to apply. Contact: SchoolSpan Web Empowerment Grants, (800) 289-1622, Ext. 301. You may visit the website at <http://www.schoolspan.com/grant.asp>.

## Curriculum

**Exploring Career Clusters through Technology Education.** — A majority of students reaching their senior year in high school have little idea what they want to do with the rest of their lives. Even if they think they do, most likely, their view of the world of work is fairly limited. They think in broad terms of engineer, doctor, lawyer, or business person. It goes without saying, the world of careers is much larger. Opportunities abound for young people today, but students must be aware of them and know how to prepare for them.



*Exploring Career Clusters Course A* provides an organized method for students to experience, through a hands-on authentic scenario, real-world occupations. Most importantly, Exploring Career Clusters provides a process for students to connect personal and educational requirements to real-world occupations. By giving students the opportunity to role play authentic occupational tasks, they are exposed to many of the job skills



and knowledge needed. This exposure helps to connect the formal training of schools subjects to the world of work throughout life.

Please take time to read the "course overview" materials closely. It is important to maintain the integrity of the course structure. Using individual activities or lessons out of context will not achieve the desired outcomes of this course. Students who complete this course in its entirety will be aware of their opportunities and the requirements needed to pursue those opportunities - students will be able to make informed decisions and good choices for career preparation. For more information go to:

<http://missouricareereducation.org/curr/cmd/techedG/explgCC/index.html>.

Michael D. Wright, Project Director

Ben K. Yates, Project Developer & Writer

### **ITEA—CATTS (Center for Advancing the Teaching of Technology and Science—**

The Center to Advance the Teaching of Technology & Science (CATTS) was established in 1998 to strengthen professional development and advance technological literacy. CATTS initiatives are directed toward four goals: development of standards-based curricula; teacher enhancement; research concerning teaching and learning; and curriculum implementation and diffusion.



Because Missouri was a CATTS Consortium member in the years shown on the web link below, the CATTS materials developed in those years are provided here for use in promoting technological literacy. These links are for your convenience and are not intended to be shared with others outside of Missouri. However, you may copy these resources to a CD or print them for dissemination to teachers and others within Missouri. For more information go to: <http://www.iteaconnect.org/CATTSresources/CATTSresourcesMO01.html>.

**Technology Education TSA National Curriculum!** After several years of development and field-testing in technology classrooms, TECHKnow is now available. TECHKnow was written by, and for, Technology Teachers and their classroom. The TECHKnow Project consists of 20 units of study, carefully incorporating the Standards for Technological Literacy and all of the units correspond to TSA Competitive Events. Ten units were developed for Middle School and 10 units for the High School level. One book containing 5 units for the Middle School, and one book containing 5 units for the High School, will be available for the 2004-2005 school year. The second book for each level will be available late summer of 2005. For more information go to <http://www.cplearning.com/>



Missouri TSA



### **Opportunities are still available for your chapter to participate in the National TSA Mentoring Program!**

The Mentor Program is an opportunity for you and your chapter to develop a friendship with another TSA chapter, use leadership skills in providing assistance, and to pass along ideas and tips that have helped strengthen your chapter. If you have had a TSA chapter for more than a year, we invite you to become a Mentor chapter. For more information go to <http://www.tsaweb.org/get.php?page=/membership/mentor.html>.

**8<sup>th</sup> Annual Fall Leadership Connections Conference A Huge Success** – The 8<sup>th</sup> Annual Missouri TSA Fall Leadership Connections Conference held on October 20-22, 2005, Ramada Inn of Jefferson City, Missouri was a great success! More than 22 school districts participated in the newly revised conference which was enhanced with many new opportunities for students at various levels of experience from the 1<sup>st</sup> timers to those 4<sup>th</sup> year veterans. During the Awards Ceremony on Saturday morning of this historic event recognized more than 120 students with the Missouri Basic, Academic and Collegiate degrees in leadership development.

This conference provided all students the opportunity to develop your leadership skills and network with other Technology Education teachers and students from across the state. For more information about Fall Leadership Connections Conference go to: [http://dese.mo.gov/divcareered/tsa\\_fall\\_leadership\\_conference.htm](http://dese.mo.gov/divcareered/tsa_fall_leadership_conference.htm).

**Are You Planning to Start a TSA Chapter?** Then you should begin by reviewing the "10 Steps To Starting a Chapter" found on our website at: [http://dese.mo.gov/divcareered/tsa\\_information.htm](http://dese.mo.gov/divcareered/tsa_information.htm). I would encourage you to plan to attend the "Missouri TSA Fall Leadership Connections Conference" in early October with your officers or officers to be. This conference will train your officers in every aspect of what they need to run your TSA chapter and how to work together as a team. You can learn more about all of our conferences at [http://dese.mo.gov/divcareered/tsa\\_student\\_conferences.htm](http://dese.mo.gov/divcareered/tsa_student_conferences.htm). You can find information about the yearly affiliation of your members at [http://dese.mo.gov/divcareered/tsa\\_members.htm](http://dese.mo.gov/divcareered/tsa_members.htm).

**TSA Chapter Affiliation Forms and Dues** You can find the chapter affiliation form to register your chapter for the 2005-2006 school year at [http://dese.mo.gov/divcareered/tsa\\_membership\\_information.htm](http://dese.mo.gov/divcareered/tsa_membership_information.htm). There are a few changes that will need to make note of in regards to the dues. National Individual dues will be \$9 and CAP dues will be a flat rate of \$350 with NO discounts for multiple schools. Missouri dues are still the same with individual dues at \$3 and CAP at \$115.



**The 26<sup>th</sup> Annual Missouri TSA State Leadership and Career Development Conference will be April 6-8, 2006 at Central Missouri State University, Warrensburg, Missouri.** It is only 21 weeks and 6 days until several hundred enthusiastic students and advisors gather for this annual event to compete in numerous events and conduct the business of the organization. For more information go to [http://dese.mo.gov/divcareered/tsa\\_state\\_leadership\\_conference.htm](http://dese.mo.gov/divcareered/tsa_state_leadership_conference.htm).

#### Other News of Interest

### Triangle Coalition Electronic Bulletin

October 27, 2005 Volume 11, Number 41

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Issue Sponsor: **The ADC Foundation**



#### ***This Week's Topics:***

- 2005 NATION'S REPORT CARD SHOWS SIGNIFICANT PROGRESS FOR U.S. STUDENTS IN READING AND MATHEMATICS
- NASA CLASSROOM MATERIALS ARE JUST A CLICK AWAY
- UPCOMING NASSMC STATE STEM EDUCATION SUMMITS
- PROJECTIONS OF EDUCATION STATISTICS TO 2014
- U.S. CHAMBER AND CORPORATE PARTNERS ASSEMBLE TO EXPLORE IMPROVEMENTS TO NATION'S EDUCATION SYSTEM
- KIDS WITH ACCESS TO A HOME COMPUTER ARE MORE LIKELY TO GRADUATE, DIGITAL DIVIDE STUDY FINDS
- CONNECTING MATHEMATICS TO OTHER SUBJECT AREAS GRANTS FOR GRADES 9-12 TEACHERS
- EDUCATIONAL OUTREACH PROGRAMS AT NOBELPRIZE.ORG

### **2005 NATION'S REPORT CARD SHOWS SIGNIFICANT PROGRESS FOR U.S. STUDENTS IN READING AND MATHEMATICS**

Overall, student achievement in the U.S. continues to rise, according to results from "The 2005 Nation's Report Card," with some of the larger gains being made by the nation's Black, Hispanic, and lower income students. The results are documented in two reports, "The Nation's Report Card Reading 2005" and "The Nation's Report Card Mathematics 2005," which detail achievement on the National Assessment of Educational Progress (NAEP) administered to fourth and eighth graders in selected years, most recently 2000, 2003, and in 2005, earlier this year. Based on national averages, achievement in mathematics rose to its highest level in 15 years, with most of the gains for both students in grades four and eight occurring since 2000. Gains in mathematics for both fourth and eighth graders from both 2000 and 2003 to 2005 were significant.

Mathematics performance improved for the nation, for the majority of states, and for many student groups. Fourth-graders' average score was 3 points higher and eighth-graders' average score was 1 point higher in 2005 than in 2003, on a 0 to 500 point scale. The average scores increased since the first assessment year,

1990, by 25 points at grade 4 and by 16 points at grade 8. Between 1990 and 2005, the percentage of fourth-graders performing at or above Basic increased by 30 percentage points, from 50 to 80 percent, and the percentage performing at or above Proficient increased from 13 to 36 percent. The percentage of eighth-graders performing at or above Basic was 17 percentage points higher in 2005 (69 percent) than in 1990 (52 percent), and the percentage performing at or above Proficient increased from 15 to 30 percent. Examining the short-term trends between 2003 and 2005, when all 50 states and the District of Columbia and Department of Defense Schools were assessed, shows average scores for students at grade 4 increased in 31 states and both jurisdictions. The percentage of students performing at or above Basic increased in 23 states and the District of Columbia. At grade 8, there were 7 states with higher average scores in 2005 than in 2003. The percentage of students performing at or above Basic increased in 5 states.

In 2005, more than 165,000 fourth-grade students and 159,000 eighth-grade students nationwide participated in the NAEP assessment in reading. About 172,000 fourth grade and 162,000 eighth-grade students nationwide participated in the math assessment. Further details on the math report are available at <http://nces.ed.gov/nationsreportcard/mathematics>.

### **NASA CLASSROOM MATERIALS ARE JUST A CLICK AWAY**

Teachers have always played an important role in the development of the nation's workforce. Today's astronauts, scientists, researchers, and engineers were once students; and the classrooms of today hold the explorers of tomorrow. To support the teachers that make its missions possible, NASA creates a wide variety of materials to bring the excitement of exploration into the classroom. NASA also strives to make those materials as accessible as possible for educators to use. Education resources can be picked up from NASA Educator Resource Centers, ordered through the mail or downloaded off the Internet and printed. But with space-age technology, it seems like there should be a better way. Well, now there is. Through a new partnership between NASA and OfficeMax, Inc., educators can now order resources that are available on the NASA website at [www.nasa.gov/education/materials](http://www.nasa.gov/education/materials) for pickup at their area OfficeMax Print and Document Services. OfficeMax is offering a savings of 50 percent on all material printed through the partnership. "This partnership will save teachers a great deal of time by letting OfficeMax do the downloading, printing, and color copying for them," explains said Sam Duncan, president and CEO of OfficeMax."

### **UPCOMING NASSMC STATE STEM EDUCATION SUMMITS**

Triangle Coalition member, the National Alliance of State Science and Mathematics Coalitions (NASSMC), has announced that several NASSMC coalitions are holding state STEM education summits this fall and winter. The summits will address the challenge of crisis proportions in mathematics and science education that will impact business and industry for decades and affect the nation domestically and internationally. Most of the scheduled events are funded through the NASSMC State Summit Implementation Program (NSSIP) with support from Triangle Coalition member, NASA, and the U.S. Department of Education. Dates for upcoming events include:

Iowa: November 10-11, 2005  
Maryland: November 17, 2005  
New Mexico: November 17-19, 2005  
Colorado: February 23, 2006  
Tennessee: Spring, 2006  
Alabama: March 6-7, 2006

The National Alliance of State Science and Mathematics Coalitions (NASSMC) is an umbrella organization for state coalitions of business, education, and public policy leaders united for the improvement of science, technology, engineering, and mathematics (STEM) education for all students. NASSMC ([www.nassmc.org](http://www.nassmc.org)) is a network of state coalitions and serves as the national advocate for the member organizations. For more information about the STEM education summits, visit [www.nassmc.org/summits.html](http://www.nassmc.org/summits.html).

### **PROJECTIONS OF EDUCATION STATISTICS TO 2014**



In early September, the National Center for Education Statistics (NCES) released "Projections of Education Statistics to 2014," the 33rd report in a series begun in 1964. The publication provides projections for key education statistics. It includes statistics on enrollment, graduates, teachers, and expenditures in elementary and secondary schools, and enrollment, earned degrees conferred, and current-fund expenditures of degree-granting institutions. For the Nation, the tables, figures, and text contain data on enrollment, teachers, graduates, and expenditures for the past 14 years and projections to the year 2014. For the 50 States and the District of Columbia, the tables, figures, and text contain data on projections of public elementary and secondary enrollment and public high school graduates to the year 2014. In addition, the report includes a methodology section describing models and assumptions used to develop national and state-level projections.

According to the report, total public and private elementary and secondary school enrollment reached a record 55 million in fall 2002, representing a 19 percent increase since fall 1989. Between 2002 and 2014, a further increase of 4 percent is expected, with increases projected in both public and private schools. In the regions, increases are expected in the West and South, and decreases are expected in the Northeast and Midwest. The report also showed that the pupil/teacher ratio in elementary and secondary schools decreased from 16.7 to 15.9 between 1989 and 2002; and is projected to be 14.6 in 2014. In addition, the report says that the total number of elementary and secondary teachers increased 25 percent between 1989 and 2002 and is projected to increase an additional 13 percent between 2002 and 2014. With regard to high school graduate rates, between 2001-02 and 2013-14, the number of high school graduates is projected to increase nationally by 10 percent. Increases are expected in each region of the country, especially in the West. Both public and private schools are expected to have increases in high school graduates. To view the full report, visit <http://nces.ed.gov/pubs2005/2005074.pdf>.

### **U.S. CHAMBER AND CORPORATE PARTNERS ASSEMBLE TO EXPLORE IMPROVEMENTS TO NATION'S EDUCATION SYSTEM**

In early October, the United States Chamber of Commerce brought together lawmakers, leaders from corporate America, and education professionals to kick off the 2005 Business Education Network (BEN) Summit in Washington, DC, a part of an aggressive new initiative to increase the business community's involvement in education reform. "America's employers have always had a vested interest in the quality of the nation's education system because it is a critical component in the development of a productive workforce," said Suzanne Clark, chief operating officer for the Chamber. "This summit provides a unique opportunity for businesses to pool both their ideas and resources in the interest of making the country's schools a model of excellence for the rest of the world."

The three-day summit, hosted by the Chamber's Center for Corporate Citizenship in association with Booz Allen Hamilton, GlaxoSmithKline, IBM, Office Depot, Standard & Poor's, Oracle, Progress Energy, KPMG, Siemens, and State Farm, was focused on building business and education partnerships to improve competitiveness and scholastic performance. Numerous recent studies have shown American students are lagging behind their counterparts around the world, particularly in math and science proficiency. As a result, employers are increasingly struggling to find qualified workers. The Chamber's own Center for Workforce Preparation estimates that in just five years, as many as 10 million jobs will go unfilled because those in the labor pool will lack basic required skills. In addition to presentations by nationally recognized leaders in business and education reform, the summit included the public unveiling of the BEN website ([www.businesseducationnetwork.net](http://www.businesseducationnetwork.net)), an interactive clearinghouse of information that features education initiatives of top companies, discussion forums, and toolkits for business-education collaboration.

### **KIDS WITH ACCESS TO A HOME COMPUTER ARE MORE LIKELY TO GRADUATE, DIGITAL DIVIDE STUDY FINDS**

Access to a home computer increases the likelihood that children will graduate from high school, but blacks and Latinos are much less likely to have a computer at home than are whites, according to a new study by a researcher at the University of California, Santa Cruz, that also found the digital divide is even more pronounced among children than adults. The findings document the persistence of the digital divide and the impact on educational outcomes, even when factors like income and parental education are taken into consideration, said Robert Fairlie, associate professor of economics at UCSC. His findings appear in the

October issue of the Economics of Education Review. Although many studies have explored the impact of computers in schools, and the federal government has made computer access in schools a priority, very few studies have assessed the impact on youth of having a computer in the home. Among the key findings of Fairlie's research:

- Teenagers who have access to home computers are 6 to 8 percentage points more likely to graduate from high school than teens who lack access to a home computer, after controlling for individual, parental, and family characteristics.
- Only 50.6 percent of blacks and 48.7 percent of Latinos have access to home computers, compared to 74.6 percent of whites.
- Only 40.5 percent of blacks and 38.1 percent of Latinos have Internet access at home, compared to 67.3 percent of whites.
- Asians have home computer and Internet access rates that are slightly higher than white rates (77.7 and 70.3 percent, compared to 74.6 and 67.3 percent).

"We are clearly not all a 'nation online'," said Fairlie. "Twenty million children in the United States, or 26 percent of children, have no computer access at home, and race is a key part of who's online and who isn't." His research is funded by the W. T. Grant Foundation and the Community Technology Foundation of California. More information is available at <http://cjitc.ucsc.edu/digitaldivide.html>.

### **CONNECTING MATHEMATICS TO OTHER SUBJECT AREAS GRANTS FOR GRADES 9-12 TEACHERS**

The Mathematics Education Trust (MET) is seeking grant applicant for "Connecting Mathematics to Other Subject Areas Grants for Grades 9-12 Teachers." The purpose of this grant is to create senior high classroom materials or lessons connecting mathematics to other fields. For 2006-2007, grants with a maximum of \$3,000 each will be awarded to National Council of Teachers of Mathematics (NCTM) members currently teaching mathematics in grades 9-12. The focus of these materials should be on showing the connectivity of mathematics to other fields or to the world around us.

Interested teachers are invited to submit a proposal by November 4. Details are available at [www.nctm.org/about/met/pappas.htm](http://www.nctm.org/about/met/pappas.htm). Established by Triangle Coalition member, the National Council of Teachers of Mathematics, the Mathematics Education Trust supports the improvement of mathematics teaching and learning through the funding of grants, awards, and other projects by channeling the generosity of contributors into classroom-based efforts that benefit all students. Information about other MET initiatives may be found at [www.nctm.org/about/met](http://www.nctm.org/about/met).

### **EDUCATIONAL OUTREACH PROGRAMS AT NOBELPRIZE.ORG**

Nobelprize.org has a unique way of introducing the Nobel Prizes that goes beyond the mere presentation of facts. The site has a special education section which includes games, experiments, and simulated environments ready to be explored and discovered. The materials are aimed at 14-18 year old students, and focus on topics that are related to Nobel Prize-winning achievements. Topics are organized in to physics, chemistry, medicine, literature, peace, and economics, and include activities related to lasers, liquid crystals, conductive polymers, blood typing, and nerve signaling. There's even a virtual biochemistry lab! Find out more at [http://nobelprize.org/games\\_simulations.html](http://nobelprize.org/games_simulations.html).

This TCEB is made possible in part through a grant from: **The ADC Foundation** - [www.adc.com/philanthropy](http://www.adc.com/philanthropy)

The goal of the ADC Foundation is to provide social and economic value by encouraging employee contributions and by making direct grants in two strategic focus areas: mathematics and science education, and public access to technology.

TCEB is made possible by grants from members and other organizations. To find out how your organization can sponsor the TCEB or support the Triangle Coalition in other ways, visit [www.triangle-coalition.org/support.htm](http://www.triangle-coalition.org/support.htm)

## 2005-2006 Program of Activities (Calendar)

**September 2005**

- 1 Thursday.....Fiscal Membership Year Begins
- 10 Saturday .....TSA's Official 27th Anniversary
- 19 Monday.....Missouri TSA Fall Leadership Connections  
Conference On-Line registration open
- 22 Thursday.....National School Scene (Fall Issue) posting  
TSA Today (Fall Issue) posting

**October 2005**

- 1 Saturday .....TEAM Fall Conference and Executive Board meeting, CMSU,  
Warrensburg, MO
- 20-22 Thursday – Saturday.....Annual Fall Leadership Connections Conference, Jefferson City,  
Ramada Inn.

**November 2005**

- 1 Tuesday.....School Scene (Winter Issue) Deadline  
Missouri TSA Today Newsletter articles  
Due at State Office
- 4 Friday.....**Chapter Affiliations – Priority membership due to National TSA  
(includes state dues)**
- 4 Friday.....State Leadership Team Meeting, Jefferson City, MO, Governors Office  
Building Rooms 315 — 316

**December 2005**

- 8-10 Thursday - Saturday.....ACTE Conference, New Orleans, LA

**January 2006**

- 2 Monday.....TE GAP RFGA for FY-2007 posted to the web
- 3 Tuesday.....School Scene (Winter Issue) Posting  
TE GAP FY-2006 Mid Year Report form due
- 9 Monday.....State Officer Candidate Filing Form Due
- 27 Friday.....State Leadership Team Meeting —  
TSA BOD meeting — State Officer Candidate Interviews  
Jefferson City, MO, Governors Office Building,  
Rooms 315 — 316

**February 2006**

- 1 Wednesday .....DEADLINE FOR CHAPTER AFFILIATIONS
- 1 Wednesday .....School Scene (Spring Issue) deadline  
All Missouri TSA Awards Recognition applications are due  
Missouri TSA Today Newsletter articles due at State Office
- TBA .....TSO Governor's Proclamation Signing
- 6 Monday.....National TSA Conference Information posted to web site
- 6-10 Monday - Friday .....Career and Technical Education Week
- 10 Friday.....School Scene (Spring Issue) Posted On-Line
- 20-24 Monday – Friday.....National Engineers Week

**March 2006**

- 11 Monday.....TSA State Conference On-Line Registration Open
- 29 Tuesday.....School Scene (spring issue) Posting  
TSA Today (spring issue) Posting
- 23-25 Thursday - Saturday.....ITEA Conference, Baltimore, MD
- 31 .....TE GAP FY-2007 Application due

## April 2006

- 5 Friday.....National Officer Candidate application due to state advisor  
6-8 Thursday - Saturday.....Missouri TSA State Leadership &  
Career Development Conference  
Missouri TSA BOD meeting  
CMSU, Warrensburg, MO  
11 Tuesday.....Deadline for White Star Chapter recognition  
17-21 Monday - Friday .....National Student Leadership Week  
24-28 Monday - Friday .....National TSA Week

## May 2006

- 1 Monday.....TE GAP FY-2006 FV-2 Form due  
1 Monday.....Postmark date for the following applications and nominations are due to  
National TSA:  
▪ Gold Achievement Program  
▪ American Spirit Award  
▪ Air Force Recruiting Salutes Award  
▪ National officer candidate applications  
▪ State Superlative Awards  
▪ National Award and Recognition Program  
12 Friday.....TE GAP FY-2006 Final Progress Report Form due  
19 Friday.....Conference registration materials and fees due to National TSA (Copy  
faxed to State Advisor required)

## June 2006

- 5 Monday.....National Officer candidate notification eligibility  
5-9 Tuesday - Friday .....2006-2007 State Officer Training (Required)  
21-25 Wednesday--Sunday.....28th Annual TSA Conference, Dallas, TX

## July 2006

- 24-26 Monday-Wednesday ..... Annual Missouri ACTE Summer Conference  
▪ TSA Board of Directors meeting  
▪ TSA All Advisors Meeting

Thoughts for Consideration, (from across the pond)

## BBC NEWS

### 100 things we didn't know this time last year

Each week the Magazine picks out snippets from the week's news - interesting newsbites that we learn along the way, and find their way into 10 Things We Didn't Know This Time Last Week every Saturday. So at the end of the year, here is an almanac of those things we learned.

1. **Street brawlers sometimes** arm themselves with potato peelers, according to the Home Office, which wants to make them banned weapons.
2. **Farmers plant their** crops up to three weeks earlier than 15 years ago. In the 1960s, temperatures from January to March averaged 4.2C; it rose to 5.6C in the 1990s.
3. **Brussels sprouts have** three times as much vitamin C as oranges. 10 balloons by Conrad Bessant
4. **Crows apparently like** the taste of windscreen-wiper blades.
5. **52% of households** have five or more remote controls.



6. **Dame Judi Dench sends** 450 Christmas presents, according to her daughter.
7. **The heat generated** by a laptop, and the knees-together pose needed to balance it, can damage a man's fertility.
8. **Brazilians are the** nationality most likely to read spam.
9. **Some pigeons follow** roads and turn off at motorway junctions to navigate their way round.
10. **Ten people die** on the UK's roads every day.
11. **The opening lines** of the Communist Manifesto - "A spectre is haunting Europe - the spectre of Communism" - were initially translated as "A frightful hobgoblin stalks through Europe".
12. **Ronald Reagan started** planning his own funeral the year he entered the White House almost quarter of a century ago. He died in June.
13. **Smoking killed nearly** one million people worldwide in 2000, according to the World Health Organisation.
14. **Marine biologists** say altruistic behaviour is not uncommon in dolphins.
15. **UK scientists have** developed a clock which ticks 1,000,000 billion times a second. Technically that's a quadrillion.
16. **Prince Charles and** Paul Dacre, editor of the Daily Mail, were born on the same day.
17. **Ian Hislop, scourge** of the media powerful, now knows that his grandfather's middle name was Murdoch.
18. **There are 75** withdrawals from cash machines every second in the UK.
19. **The collective noun** for rhinos is "crash".
20. **Osama Bin Laden** refers to 9/11 as "Manhattan".
21. **The word "electricity"** was first used in English in about 1600 by Elizabeth I's physician.
22. **George W Bush** got the highest number of votes for president of any candidate in US history, in November 2004.
23. **John Kerry got** the second highest number.
24. **Germany has an** 18-year-old MP - Julia Bonk, a member of the Saxony legislature. Her name is not funny in German.
25. **Half of Britons** have a collection of more than 20 carrier bags at home, according to a survey. One in 10 people has up to 80.  
[Full story](#)
26. **The full names** of Scooby Doo's Mystery Inc members are: Fred Jones, Daphne Blake, Velma Dinkley, Scooby "Scoobert" Doo. Shaggy is actually Norville Rogers.
27. **So much for** the overworked society, the average British employee actually works 75 minutes less a week than in 1997, according to the Centre for Economics and Business Research.
28. **The word "celeb"** is not a recent invention - it was used in a letter to Woodrow Wilson in 1913. The word "sex", used to mean sexual intercourse, was first used in 1929.  
[Full story](#)

- 29. The remains of** thousands of mammoths have been found by fishermen in the North Sea.
- 30. The Sydney Harbour** Bridge contains just 16 nuts and bolts. The rest is held together by rivets, because it doesn't need to be dismantled.
- 31. Herrings break wind** to communicate and keep the school together.
- 32. Tory leader Michael** Howard and wife Sandra watch a video of Brideshead Revisited every New Year.
- 33. Bob Dylan originally** planned to use his first two given names, Robert Allen, as his stage name, because it sounded like the name of a Scottish king. After he saw some Dylan Thomas poems, he chose Dylan as his new surname instead.
- 34. Plastic surgery dates** back to 600BC and the first nose job was in 1000AD.
- 35. George Bush and** John Kerry shared the same debating coach while at Yale University. His name was Rollin Osterweis.
- 36. One in five** British homes has a foot spa, although mostly they lie idle, among more than £3bn of "useless gadgets" to be found in UK homes, according to insurance firm Esure.
- 37. Although it's nearly** 24 years since Jimmy Carter was US president, he still receives about 4,000 letters a month.
- 38. Yoda was based** on Albert Einstein.
- 39. More Brits die** each year falling from their hotel balcony than do in diving accidents, according to Foreign Office statistics.
- 40. There is a** British Hat Council - it's the body which coined the phrase: "If you want to get ahead, get a hat." It reports that sales of hats to men have risen by 80% in the past year, and that £51m will be spent on headgear this year.
- 41. Twenty years ago** , seven out of every 10 pints drunk in the UK were ale. Now, thanks to the rise of lager, stout and cider, the number is just three.
- 42. Running a car** costs the average motorist £101 a week, according to the RAC.
- 43. In 1911, Pablo** Picasso was one of the suspects arrested for the theft of the Mona Lisa.
- 44. Until 3 September 2004**, the fastest bus in London was an old fashioned red double decker, registration number ALD 971B. Unlike other buses, according to reports, this one did not have a speed regulator and so could go above 30mph.
- 45. There is a** world record for being able to squirt liquids out of a human eye. The existing record is 8.7 feet (2.65m), but a Turkish man claims to have broken the record with a 9.2 feet (2.8m) squirt.
- 46. Interesting historical footnote:** Greg Dyke was on the Atkins diet at the time of the Hutton Report, he revealed in his autobiography.
- 47. A "jiffy" is** 10 milliseconds in computer science terms.
- 48. Margaret Roberts** (later Thatcher) helped invent the chemical process that produces Mr Whippy ice cream.

**49. Guests at the** Queen's coronation in 1953 pilfered toilet paper from Westminster Abbey. "It was found early on Coronation Day, that much of the lavatory paper had been removed, and in future it will be necessary to take steps to prevent this," official records released this year reveal.

**50. A tribe living** in a remote part of Brazil's Amazon rainforest has no words for numbers beyond two. The Piraha use "one" to mean one or roughly one, two means two, while any larger number is just "many".

**51. The day after** the atomic bomb exploded on Hiroshima, the banks re-opened. They had one customer, John Reader's book *Cities* recorded.

**52. Up to 65%** of children with a father in jail get imprisoned themselves, according to Home Office figures.

**53. Phrase-turner extraordinaire** Clive James says he originated the terms "underwhelmed" and "young fogey", but is yet to receive the recognition he deserves. He also says he's particularly proud of his description of the Conan the Barbarian-era Arnold Schwarzenegger as "a brown condom full of walnuts".

**54. George Clooney listens** to *The Archers* online, according to model Lisa Snowden who says she introduced him to it.

**55. Having breaking news** alerts delivered to your mobile phone may seem cutting edge, but the Daily Express pioneered the service back in 1914, offering personal war updates via telegram for a shilling each.

**56. The Shining is** the "perfect scary movie", according to researchers, who have come up with a scientific formula for such things. They identified the isolated setting, escalating music and chase scenes as some of the key elements in its success.

**57. Gibraltar, which celebrated** 300 years under British rule this year, was named Jebel Tarik - Tarik's mountain - by Moorish settlers in honour of their leader Tarik ibn Zeyad. The last syllable was lost over time.

**58. Saddam Hussein's son** Uday kept nine lions as the centrepiece of a bizarre menagerie of exotic animals. In July the lions were moved to Baghdad zoo.

**59. Britons throw away** enough rubbish every hour to fill the Royal Albert Hall.

**60. The bookmakers William** Hill loses 80,000 little pens a day - the sort used to fill out betting slips.

**61. Ken Livingstone, the** mayor of London, has got solar panels fitted on the roof of his Cricklewood home.

**62. The founder of** the Natural History Museum, Sir Richard Owen, was the man we have to thank for the word "dinosaur", literally meaning "terrible lizard".

**63. Just one in** a hundred workers goes to the pub for their lunch, according to a study. The same proportion spend lunch having sex.

**64. Chef Gordon Ramsay** says he gets between three and five parking tickets on any working day.

**65. "Square eyes" might** be real - Australian researchers have found that children who spend a long time inside watching television or on computers become more susceptible to short-sightedness.

**66. An American girl** aged between three and 11 has, on average, 10 Barbie dolls in her toy box.

**67. It's 30 years** since the world's first barcode was used. It was on a 10-pack of Wrigley's Juicy Fruit at a supermarket in Ohio. The gum is now an exhibit in the Smithsonian Museum in Washington DC.

**68. Bill Clinton revealed** in his autobiography that he didn't learn to ride a bike properly until he was 22.

**69. The theme music** to Crimewatch UK, which celebrated its 20th anniversary in June, is called Rescue Helicopter - written by John Cameron.

**70. And reports of UFOs** have dwindled since the late 1990s. In the UK, sightings have gone from about 30 a week to almost zero; it's a trend echoed in the US and Norway.

**71. Departing chancellors** of the exchequer get to choose a cartoon caricature of themselves to hang on the staircase of 11 Downing Street. Not that the current occupant, Gordon Brown, is going anywhere just yet - this year he became Britain's longest-serving chancellor.

**72. Desert locusts can** travel 120 miles in 24 hours.

**73. Ducks have regional** accents. London ducks shout out a rough quack to be heard above the urban din; those in the West Country make a quieter, softer sound.

**74. Lasagne has replaced** chicken tikka massala as the favourite dish of Britons. Sainsbury's sold 13.9 million lasagne ready meals and just 7.4 million chicken tikka massalas last year. Tesco sold 9.8 million lasagnes and 6.3 million chicken tikka massalas.

**75. Freak conditions above** Everest can cause the sky to "fall in". An analysis of weather patterns in May 1996, by University of Toronto researchers, said eight people died when the stratosphere sank to the level of the summit.

**76. More than one** billion birds crash into buildings in the US every year. Mirrored office blocks are a particular hazard.

**77. There are at least** 17 Maxine Carrs in the UK, all of whom are ex-directory.

**78. Defeated Democratic presidential** candidate John Kerry says he once flew upside-down over Israel. It was, he says, the "perfect way" to see the Middle East.

**79. Space is only** 62 miles away. That's 100 kilometres.

**80. Essex is the** UK's book club capital, with more reading groups than any other county and spin-off events such as a walk-and-talk-about-books club.

**81 . When people are** in love, weird things happen. Men get more female hormones, and women get more male. Scientist Donatella Marazziti says it's as if nature wants to eliminate what can be different in men and women, perhaps to help the mating process.

**82. Alan Smithee is** a prolific director of film stinkers. His is the name directors use if a film is recut by the studio against their wishes. The alias was first used on the 1969 western, Death of a Gunfighter. Its origins are somewhat murky, but one theory goes that it is an anagram of "The Alias Men."

**83. There's no mobile** reception at the top of the Gherkin in London - it's too high up at 40 storeys. The phone companies hadn't expected a tower so tall, and it's above the reception area.

**84. There are 1,049** offshore British islands. One of the late Norris McWhirter's great loves was visiting them all.

**85. Poets die young...** "On average, poets lived 62 years, playwrights 63 years, novelists 66 years and non-fiction writers lived 68 years," according to California State University's James Kaufman.

**86. You can see** the back of your own head in some parts of the universe as time and light are so curved. The universe is neither flat, nor football shaped - it looks like a flat-sided trumpet, German physicists believe.



- 87. One gigabyte of** information - about a quarter of the memory of an iPod mini - is the equivalent of a pick-up truck load of paper.
- 88. In the past** decade, four people in the UK have died in cemetery accidents, crushed by falling tombstones.
- 89. Continuing in this** cheery vein, more than 1.2 million people die in traffic accidents worldwide each year. The first was Bridget Driscoll, knocked down by a car travelling at 12mph in London on 17 August 1896. The coroner recorded a verdict of accidental death, and warned: "This must never happen again."
- 90. A quarter of** Australia's population was born outside the land Down Under.
- 91. Scientists have developed** cress which changes from green to red when it comes near explosives - ideal for spotting landmines...
- 92. ...which is a** good job as there are still about 100m undiscovered landmines in the world, just waiting to go off.
- 93. One in 12** of the country's workforce is a cleaner, according to the British Cleaning Council.
- 94. A cruise ship** can put more than 130,000 litres of sewage into the sea each day.
- 95. There are a** third more children at grammar schools now, under Labour, than there were 10 years ago under the Tories (150,750 now compared with 111,846 in 2003.)
- 96. One in four** 16- and 17-year-old girls in the UK is on the contraceptive pill - more than ever before.
- 97. Matt Groening's father** - the inspiration for Homer Simpson - has only complained once about his alter-ego's actions. It was an episode in which Homer badgered Marge into walking some considerable distance on a hot day to fetch him something.
- 98. Lord Baden Powell** wanted a section on the dangers of "self abuse" in his Scouting for Boys. His original manuscript read: "A very large number of the lunatics in our asylums have made themselves ill by indulging in this vice although at one time they were sensible cheery boys like you."
- 99. Dom Perignon, the** Benedictine monk, was originally employed by his abbey to get the bubbles out of the champagne, according to Gerard Liger-Belair's new book, Uncorked: the Science of Champagne.
- 100. Bill Clinton sent** just two e-mails while he was president.

**Thanks to all the Magazine readers who submitted items and photographs this year. 10 Things will return as normal next weekend.**

Story from BBC NEWS: [http://news.bbc.co.uk/go/pr/fr/-/2/hi/uk\\_news/magazine/4134329.stm](http://news.bbc.co.uk/go/pr/fr/-/2/hi/uk_news/magazine/4134329.stm)

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